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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/717,820 | 11/20/2003 | Michael Elroy Muhle | 2002U021.US | 8669 |

7590 04/29/2004

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| EXAMINER |
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CHEUNG, WILLIAM K

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| ART UNIT | PAPER NUMBER |
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1713

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/717,820 | Applicant(s) MUHLE ET AL. | |
| | Examiner William K Cheung | Art Unit 1713 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 9-12 is/are allowed.
- 6) ☒ Claim(s) 1, 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>0219</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 3-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation "reactor wall condition" in claim 1 (line 1) is considered indefinite because one of ordinary skill in art would not know what "condition" means in the claims.

*The invention of claims 1, 3-8 relates to **method of determining a reactor wall condition of a gas phase fluidized bed reactor comprising measuring a static level at a distributor plate of the reactor using a static detector assembly comprised of an electrically isolated distributor plate cap connected to the distributor plate and to an electrical lead connected to a monitor, wherein a deviation from zero in the static level indicates a poor reactor wall condition.***

Allowances

3. Claims 2, 9-12 are allowed.

4. The following is an examiner's statement of reasons for allowance:

As of the date of this office action, the examiner has not located or identified any reference that can be used singularly or in combination with another reference including the closest prior art of Bartilucci et al. (US 6,548,610) to render the present invention anticipated or obvious to one of ordinary skill in the art.

*The invention of claim 2 relates to a **method of determining static level at a distributor plate of a gas phase fluidized bed reactor** comprising:*

*a. **measuring a current flow** through an **electrically isolated distributor plate cap** located at the **distributor plate to generate current flow data**, wherein the **distributor plate cap** is connected to an **electrical lead** that is further connected to a monitor; and*

*b. **determining the static level** from the current flow data.*

*The invention of claims 9-12 relates to a **method of determining a continuity disturbance in a fluidized bed gas phase reactor** comprising the steps of **measuring static in the reactor using a radio frequency antenna and determining a discharge frequency or a pulse amplitude**, wherein a **change in discharge***

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frequency or an increased pulse amplitude as compared to a control indicates a continuity disturbance.

The closest prior art Bartilucci et al. (abstract) disclose a method and apparatus for controlling static charges in a fluidized bed reactor. By controlling the static charges in the reactor, sheeting and drooling can be controlled. However, Bartilucci et al. are silent in measuring a current flow through an electrically isolated distributor plate cap located at the distributor plate to generate current flow data. Therefore, it would not be apparent to one of ordinary skill in art to use the method of controlling static charges of Bartilucci et al. to obtain the method invention being claimed.

Regarding the invention of claims 9-12, Bartilucci et al. are silent on a method of determining a continuity disturbance in a fluidized bed gas phase reactor comprising the steps of measuring static in the reactor using a radio frequency antenna and determining a discharge frequency or a pulse amplitude. Therefore, it would not be apparent to one of ordinary skill in art to use the method teachings of Bartilucci et al. to obtain the invention of claims 9-12.

In view of the reasons set forth above, the invention of claims 2, 9-12 is allowed. The invention of claims 1, 3-8 would be allowable if the 112 rejection set forth is overcome.

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung

Patent Examiner

April 25, 2004